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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=11; day=2; hr=15; min=50; sec=48; ms=205; ]

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Application No: 10579104 Version No: 2.0

Input Set:

Output Set:

Started: 2008-09-29 16:16:48.125  
Finished: 2008-09-29 16:16:51.056  
Elapsed: 0 hr(s) 0 min(s) 2 sec(s) 931 ms  
Total Warnings: 44  
Total Errors: 14  
No. of SeqIDs Defined: 44  
Actual SeqID Count: 44

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
E 257	Invalid sequence data feature in <221> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
E 257	Invalid sequence data feature in <221> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
E 257	Invalid sequence data feature in <221> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
E 257	Invalid sequence data feature in <221> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
E 257	Invalid sequence data feature in <221> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
E 257	Invalid sequence data feature in <221> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)

**Input Set:**

**Output Set:**

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**Finished:** 2008-09-29 16:16:51.056  
**Elapsed:** 0 hr(s) 0 min(s) 2 sec(s) 931 ms  
**Total Warnings:** 44  
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**No. of SeqIDs Defined:** 44  
**Actual SeqID Count:** 44

Error code	Error Description
E 257	Invalid sequence data feature in <221> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
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W 213	Artificial or Unknown found in <213> in SEQ ID (16)
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W 213	Artificial or Unknown found in <213> in SEQ ID (17)
E 257	Invalid sequence data feature in <221> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
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W 213	Artificial or Unknown found in <213> in SEQ ID (19)
E 257	Invalid sequence data feature in <221> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20) This error has occurred more than 20 times, will not be displayed
E 257	Invalid sequence data feature in <221> in SEQ ID (20)
E 257	Invalid sequence data feature in <221> in SEQ ID (21)

# SEQUENCE LISTING

<110> POLYPHOR LTD.  
Universitaet Zuerich

<120> Template fixed beta-hairpin mimetics and their use in phage display

<130> 753-65 PCT-US

<140> 10579104

<141> 2008-09-29

<150> PCT/EP 03/12783

<151> 2003-11-15

<160> 44

<170> PatentIn version 3.5

<210> 1

<211> 4

<212> PRT

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<223> Key sequence known to occur in Platelet-Derived Growth Factor (PDGF), see Ross, R.; Raines, E. W.; Bowden-Pope, D.F.; Cell, 1986, 46, 155-159.

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<210> 2

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<223> Key sequence known to occur in Vasointestinal Peptide (VIP) showing neuroprotective properties against beta-amyloid neurotoxicity, see Proc. Natl. Am. Soc. USA, 1996, 96, 4143-4148.

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<211> 4

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<223> Key sequence known to occur in integrin alpha.sub4 beta.sub1, see  
Europ. J. Biol., 1996, 242, 352-362 and Int. J. Pept. Prot. Res.,  
1996, 47, 427-436.

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Trp Leu Asp Val

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<210> 4

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<212> PRT

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Obeidis, F.; Ostrem, J. A.; Drug Discovery Today, 1998, 3,  
223-231.

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1 5

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<212> PRT

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1 5

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<220>  
<221> DISULFID  
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<220>

<221> MOD\_RES

<222> (1)..(1)

<223> ACETYLATION

<220>

<221> DISULFID

<222> (3)..(12)

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<210> 10

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

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acetylated and wherein Z consists of 10 amino acids.

<220>

<221> DISULFID

<222> (1)..(12)

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> ACETYLATION

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<210> 11

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<212> PRT

<213> Artificial Sequence

<220>

<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2  
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acetylated, wherein Z consists of 10 amino acids, and wherein  
both R1 and R2 consist of 2 amino acids.

<220>  
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<223> ACETYLATION

<220>  
<221> DISULFID  
<222> (3)..(14)

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<220>  
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<222> (1)..(1)  
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<220>  
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2  
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acetylated, wherein Z consists of 10 amino acids, and wherein  
both R1 and R2 consist of 2 amino acids.

<220>  
<221> MOD\_RES  
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<223> ACETYLATION



<220>

<221> DISULFID

<222> (3)..(14)

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1 5 10 15

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<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2 wherein the alpha amino group of the first amino acid is acetylated, wherein Z consists of 10 amino acids, and wherein both R1 and R2 consist of 2 amino acids.

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> ACETYLATION

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<221> DISULFID

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1 5 10 15

<210> 15

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2 wherein the alpha amino group of the first amino acid is acetylated, wherein Z consists of 10 amino acids, and wherein both R1 and R2 consist of 2 amino acids.

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> ACETYLATION

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<221> DISULFID

<222> (3)..(14)

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<210> 16

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2  
wherein the alpha amino group of the first amino acid is  
acetylated, wherein Z consists of 10 amino acids, and wherein  
both R1 and R2 consist of 2 amino acids.

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> ACETYLATION

<220>

<221> DISULFID

<222> (3)..(14)

<400> 16

Glu Thr Cys Thr Lys Trp Phe Leu Ala His Tyr Ala Thr Cys Thr Lys  
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<210> 17

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2  
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acetylated, wherein Z consists of 10 amino acids, and wherein  
both R1 and R2 consist of 3 amino acids.

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> ACETYLATION

<220>

<221> DISULFID

<222> (4)..(15)

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Val Lys

<210> 18  
<211> 18  
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<213> Artificial Sequence

<220>  
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2  
wherein the alpha amino group of the first amino acid is  
acetylated, wherein Z consists of 10 amino acids, and wherein  
both R1 and R2 consist of 3 amino acids.

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> ACETYLATION

<220>  
<221> DISULFID  
<222> (4)..(15)

<400> 18

Lys Val Gly Cys Thr Lys Trp Phe Leu Ala His Tyr Ala Thr Cys Gly  
1 5 10 15

Leu Glu

<210> 19  
<211> 18  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2  
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acetylated, wherein Z consists of 10 amino acids, and wherein  
both R1 and R2 consist of 3 amino acids.

<220>  
<221> MOD\_RES  
<222> (1)..(1)  
<223> ACETYLATION

<220>

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<222> (4)..(15)

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1 5 10 15

Gly Gly

<210> 20

<211> 14

<212> PRT

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<220>

<223> Hairpin mimetic derived from the general formula Cys-Z-Cys  
wherein the alpha amino group of the first amino acid is  
acetylated and wherein Z consists of 12 amino acids.

<220>

<221> DISULFID

<222> (1)..(14)

<220>

<221> MOD\_RES

<222> (1)..(1)

<223> ACETYLTATION

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Cys Gly Thr Lys Trp Phe Ser Asn His Tyr Gln Thr Gly Cys  
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<210> 21

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Hairpin mimetic derived from the general formula R1-Cys-Z-Cys-R2  
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acetylated, wherein Z consists of 12 amino acids, and wherein  
both R1 and R2 consist of 2 amino acids.

<220>

<221> MOD\_RES

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<223> ACETYLTATION

<220>  
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Thr Lys

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<220>  
<223> Core peptide sequence Z taken from the CDR L3 loop of an antibody  
described in Jiang, L. et al., Chimia, 2000,54, 558-563.

<400> 22

Leu Trp Tyr Ser Asn His Trp Val  
1 5

<210> 23  
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<220>  
<223> Modified core peptide sequence Z derived from core peptide  
sequence with the SEQ ID NO:22 containing a stabilizing beta-turn  
and a beta-sheet sequence according to Chou, P. Y., Fasman, G.  
D., J. Mol. Biol, 1977, 115, 135-175.

<400> 23

Lys Trp Phe Ser Asn His Tyr Gln  
1 5

<210> 24  
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<212> PRT  
<213> Artificial Sequence

<220>  
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NO:25.

<400> 24

Phe Leu Ala His Tyr Ala

1 5

<210> 25

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Oligopeptide which does not contain a dedicated stabilizing beta-turn sequence or a beta-sheet sequence according to Chou, P. Y., Fasman, G. D., J. Mol. Biol, 1977, 115, 135-175.

<400> 25

Leu Trp Tyr Ser Asn His Trp Val Lys Trp

1 5 10

<210> 26

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<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide No. 1 used to construct insert DNA coding for template fixed hairpin mimetic of SEQ ID NO:10 and used to construct insert DNA coding for randomized library template fixed beta-hairpin mimetics having sequences according to SEQ ID NO:42.

<400> 26

catgcccggg tacctttcta ttctcactct gaaacctgc 39

<210> 27

<211> 84

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<213> Artificial Sequence

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<223> Oligonucleotide No. 2 used to construct insert DNA coding for template fixed hairpin mimetic of SEQ ID NO:10.

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catgtttcgg ccgagccacc acctttggtg caggtctgat aatggttgct gaaccatttg 60

gtgcaggttt cagagtgaga atag 84

<210> 28

<211> 30

<212> DNA

<213> Artificial Sequence

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tgcaaattggt tcttggcgca ttatgcgtgc	30
<210> 29	
<211> 42	
<212> DNA	
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<212> DNA	
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<223> DNA sequence coding for the peptide shown in SEQ ID NO:10.	
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<212> DNA	
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<223> DNA sequence coding for the peptide shown in SEQ ID NO:11.	
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<211> 36	
<212> DNA	
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<212> DNA	
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<210> 35

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<210> 36

<211> 48

<212> DNA

<213> Artificial Sequence

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<210> 37

<211> 54

<212> DNA

<213> Artificial Sequence

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<211> 54  
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48

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<220>  
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<222> (10)..(13)  
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<210> 44  
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randomized library template fixed beta-hairpin mimetics having  
sequences according to SEQ ID NO:42.

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